

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A speech control unit for controlling an apparatus on basis of speech, comprising:

a microphone array, comprising multiple microphones for receiving respective audio signals;

a beam forming module for extracting a speech signal of a user, from the audio signals as received by the microphones, by means of enhancing first components of the audio signals which represent an utterance originating from a first position of the user relative to the microphone array;

a speech recognition unit for creating an instruction for the apparatus based on recognized speech items of the speech signal; and

a keyword recognition system for recognition of a predetermined keyword that is spoken by the user and which is

represented by a particular audio signal;

the speech control unit being arranged to control the beam forming module, on basis of the recognition of the predetermined keyword, in order to enhance second components of the audio signals which represent a subsequent utterance originating from a second position of the user relative to the microphone array;

wherein the recognition of the predetermined keyword at the second position calibrates the beam forming module to follow the user from the first position to the second position so that the subsequent utterance originating from the second position are accepted while utterances of other users at other positions are discarded, the second position including an orientation and a distance relative to the microphone array, and the speech control unit being configured to discriminate between sounds originating from users who are located in front of each other relative the microphone array; and

wherein the subsequent utterance originating from the second position will be discarded if not preceded by the recognition of the predetermined keyword originating from the second position.

2. (Previously Presented) The speech control unit as claimed

in claim 1, wherein the keyword recognition system is arranged to recognize the predetermined keyword that is spoken by another user and the speech control unit being arranged to control the beam forming module, on basis of this recognition, in order to enhance third components of the audio signals which represent another utterance originating from a third position of the other user relative to the microphone array.

3. (Previously Presented) The speech control unit as claimed in claim 1, wherein a first one of the microphones of the microphone array is arranged to provide the particular audio signal to the keyword recognition system.

4. (Previously Presented) The speech control unit as claimed in claim 1, wherein the beam forming module is arranged to determine a first position of the user relative to the microphone array.

5. (Original) An apparatus comprising:  
a speech control unit for controlling the apparatus on basis of speech as claimed in claim 1; and

processing means for execution of the instruction being created by the speech control unit.

6. (Previously Presented) The apparatus as claimed in claim 5, the apparatus arranged to show that the predetermined keyword has been recognized.

7. (Previously Presented) The apparatus as claimed in claim 6, further comprising audio generating means for generating an audio signal in order to show that the predetermined keyword has been recognized.

8. (Original) A consumer electronics system comprising the apparatus as claimed in claim 5.

9. (Currently Amended) A method of controlling an apparatus on basis of speech, comprising the acts of:

receiving respective audio signals by means of a microphone array, comprising multiple microphones;

extracting a speech signal of a user, from the audio signals as received by the microphones, by means of enhancing first

components of the audio signals which represent an utterance originating from a first position of the user relative to the microphone array;

recognizing a predetermined keyword that is spoken by the user based on a particular audio signal and controlling the extraction of the speech signal of the user, on basis of the recognition of the predetermined keyword, in order to enhance second components of the audio signals which represent a subsequent utterance originating from a second position of the user relative to the microphone array while discarding utterances of other users at other positions, the second position including an orientation and a distance relative to the microphone array so that sounds originating from users who are located in front of each other relative the microphone array are discriminated;

creating an instruction for the apparatus based on recognized speech items of the speech signal; and

discarding the subsequent utterance originating from the second position if not preceded by the recognition of the predetermined keyword originating from the second position.

10. (Previously Presented) The speech control unit of claim 1,

wherein the user is informed by indications that the speech control unit is not active, is in an active state and ready to receive the utterance, or is in a state of calibration.

11. (Previously Presented) The speech control unit of claim 10, wherein the indications include an animal in a sleeping state indicating that the speech control unit is not active, and in an awake state indicating that the speech control unit is in the active state.

12. (Previously Presented) The speech control unit of claim 11, wherein progress of the active state is indicated by an angle of ears of the animal.

13. (Previously Presented) The speech control unit of claim 12, wherein the ears are fully raised at a beginning of the active state, and fully down at an end of the active state.

14. (Previously Presented) The speech control unit of claim 11, wherein the animal has an understanding look when the utterance is recognized and a puzzled look when the utterance is not

recognized.

15. (Previously Presented) The method of claim 9, further comprising the act of informing the user by indications that the apparatus is not active, is in an active state and ready to receive the utterance, or is in a state of calibration.

16. (Previously Presented) The method of claim 15, wherein the indications include an animal in a sleeping state indicating that the speech control unit is not active, and in an awake state indicating that the speech control unit is in the active state.

17. (Previously Presented) The method of claim 16, wherein progress of the active state is indicated by an angle of ears of the animal.

18. (Previously Presented) The method of claim 17, wherein the ears are fully raised at a beginning of the active state, and fully down at an end of the active state.

19. (Previously Presented) The method of claim 16, wherein the

animal has an understanding look when the utterance is recognized and a puzzled look when the utterance is not recognized.

20. (New) The speech control unit of claim 1, wherein the beam forming module is connected to the microphone array, and the keyword recognition system is connected to one microphone of the microphone array for detecting the predetermined keyword, the keyword recognition system being further connected to the beam forming module for providing the detected predetermined keyword to the beam forming module.